

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for encoding a tag with an  $n$ -bit binary code ( $n > 1$ ) the method comprising:
  - (a) associating with the tag one or more predetermined frequency sources that produce known different respective characteristic frequencies the one or more predetermined frequency sources being other than an integrated circuit; and
  - (b) associating with each of said characteristic frequencies a known unique position in the  $n$ -bit binary code.
2. (Currently amended) The method of Claim 1, wherein associating with the tag one or more predetermined frequency sources includes associating with the tag at least one ~~some of the frequency sources are~~ passive frequency sources ~~source~~.
3. (Currently amended) The method of Claim ~~[[2]]~~ 1, wherein associating with the tag one or more predetermined frequency sources includes associating at least one resonant element with the tag ~~the passive frequency sources are resonant elements~~.
4. (Cancelled)
5. (Previously presented) The method of Claim 1, wherein the characteristic frequencies are resonant frequencies.
6. (Previously presented) The method of Claim 1, wherein the characteristic frequencies constitute acoustic signals.
7. (Cancelled)
8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Currently amended) A tag encoded with one or more predetermined frequency sources that produce known different respective characteristic frequencies and that are associated with a known unique position in an  $n$ -bit binary code ( $n > 1$ ), wherein the one or more predetermined frequency sources is other than an integrated circuit.

18. (Currently amended) An encoder for encoding a tag with an  $n$ -bit binary code ( $n > 1$ ), said encoder comprising:

a frequency source unit that is responsive to the  $n$ -bit binary code for depositing in association with the tag one or more predetermined frequency sources that produce known different respective characteristic frequencies and that are associated with a known unique position in the  $n$ -bit binary code, wherein the one or more predetermined frequency sources is other than an integrated circuit.

19. (Cancelled)

20. (Currently amended) A method for encoding a tag with an  $n$ -bit binary code, the method comprising:

(a) printing on or in association with the tag one or more predetermined frequency sources that produce known different respective characteristic frequencies,

wherein the one or more predetermined frequency sources is other than an integrated circuit; and

- (b) associating with each of said characteristic frequencies a known unique position in the  $n$ -bit binary code.

21. (Currently amended) The method of Claim 20, wherein associating with the tag one or more predetermined frequency sources includes associating with the tag at least one ~~some of the frequency sources are passive frequency sources~~ source.

22. (Currently amended) The method of Claim ~~20~~21, wherein associating with the tag one or more predetermined frequency sources includes associating at least one resonant element with the tag ~~the passive frequency sources are resonant elements~~.

23. (Cancelled)

24. (Previously presented) The method of Claim 20, wherein at least some of the characteristic frequencies are resonant frequencies.

25. (Previously presented) The method of Claim 20, wherein at least some of the characteristic frequencies constitute acoustic signals.

26. (Currently Amended) A tag encoded with one or more predetermined frequency sources that are printed on or in association with the tag and that produce known different respective characteristic frequencies that are associated with a known unique position in an  $n$ -bit binary code, the one or more predetermined frequency sources is other than an integrated circuit.

27. (Previously presented) A method for processing a tag associated with an  $n$ -bit binary code ( $n > 1$ ), the method comprising:

encoding the tag with the  $n$ -bit binary code, including:

- (a) associating with the tag one or more predetermined frequency sources that produce known different respective characteristic frequencies;
- (b) associating with each of said characteristic frequencies a known unique position in the  $n$ -bit binary code; and

decoding the tag, including:

- (c) detecting the characteristic frequencies emitted by the tag;
- (d) substituting at respective positions of said  $n$ -bit binary code respective binary values according to a presence or absence of the respective characteristic frequency associated with the respective position in the  $n$ -bit binary code.

28. (Currently amended) A system for processing a tag associated with an  $n$ -bit binary code ( $n > 1$ ), the system ~~comprises~~ comprising:

an encoder for encoding the tag with the  $n$ -bit binary code, the encoder ~~includes~~ including:

a frequency source unit that is responsive to the  $n$ -bit binary code for depositing in association with the tag one or more predetermined frequency sources that produce known different respective characteristic frequencies and that are associated with a known unique position in the  $n$ -bit binary code; and

a decoder for decoding the tag, the decoder ~~includes~~ including:

a decoding unit responsive to one or more different characteristic frequencies each of which is associated with a known unique position in the  $n$ -bit binary code and for substituting at respective positions of said  $n$

-bit binary code respective binary values according to a presence or absence of the respective characteristic frequency associated with the respective position in the n-bit binary code.

29. (New) The method of claim 1, wherein associating with the tag one or more predetermined frequency sources includes associating with the tag at least one spatially unconstrained predetermined frequency source.

30. (New) The tag of claim 17, wherein the one or more predetermined frequency sources are spatially unconstrained.

31. (New) The tag of Claim 30, wherein at least one of the frequency sources is a passive frequency source.

32. (New) The tag of Claim 30, wherein the one or more predetermined frequency sources is a resonant element.

33. (New) The tag of Claim 30, wherein the characteristic frequencies are resonant frequencies.

34. (New) The encoder of claim 18, wherein the one or more predetermined frequency sources are spatially unconstrained predetermined frequency sources.

35. (New) The tag of Claim 26, wherein at least one of the frequency sources is a passive frequency source.

36. (New) The tag of Claim 26, wherein at least one of the frequency sources is a resonant element.

37. (New) The tag of Claim 26, wherein the characteristic frequencies are resonant frequencies.

38. (New) The tag of Claim 26, wherein the characteristic frequencies constitute acoustic signals.